

**Listing of Claims:**

1. **(Currently amended)** A cryogenically protected viral delivery system for infecting host cells comprising a cryogenic vessel and a plurality of virally infected cells in admixture with a cryo-protective agent contained in the cryogenic vessel, wherein the concentration of virally infected cells is from  $10^6$  cells/ml to  $10^9$  cells/ml; wherein the admixture of the virally infected cells and the cryo-protective agent is at a temperature of less than or equal to -20 °C; and wherein the viability of cells contained in the cryogenic vessel is at least 50%-. and wherein the average cell diameter of cells contained in the cryogenic vessel is at least 0.5 μm greater than the average cell diameter of uninfected cells of the same type.
2. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the viability of the cells is at least 70%.
3. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the viability of the cells is at least 90%.
4. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the admixture is substantially free of extracellular viral particles.
5. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the admixture is substantially free of spent incubation media.
6. **(Cancelled)**
7. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the admixture of virally infected cells and cryo-protective agent is at a temperature of less than or equal to -70 °C.
8. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the admixture of virally infected cells and cryo-protective agent is at a temperature of less than or equal to -130 °C.

9. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the cryo-protective agent is selected from the group consisting of DMSO, serum albumin, serum, glycerol, and mixtures thereof.
10. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the cryogenic vessel contains from  $10^5$  to  $10^{12}$  virally infected cells.
11. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the volume of the cryogenic vessel is less than or equal to 250 ml.
12. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the volume of the cryogenic vessel is less than or equal to 30 ml.
13. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the volume of the cryogenic vessel is less than or equal to 6 ml.
14. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the cryogenic vessel is a polypropylene vial having a volume of less than or equal to 6 ml.
15. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells in the vessel represent at least 20% of the total number of cells in the vessel.
16. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells in the vessel represent at least 40% of the total number of cells in the vessel.
17. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells in the vessel represent at least 60% of the total number of cells in the vessel.
18. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are eukaryotic cells.

19. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are insect cells.
20. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are infected with recombinant virus.
21. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are infected with a virus selected from the group consisting of baculovirus, adenovirus, adeno-associated virus, influenza virus, canarypox virus, infectious bovine rhinotracheitis virus, bovine viral diarrhea virus, parainfluenza 3 virus, bovine respiratory syncytial virus, feline calicivirus, chlamydia virus, canine coronavirus, panleukopenia virus, feline leukemia virus, hepatitis A, hepatitis B, hepatitis C, human immunodeficiency virus type 1 (HIV-1) and type 2 (HIV-2), cytomegalovirus, human T-lymphotropic virus type I (HTLV-I) and type II (HTLV-II), encephalitis virus, measles virus, mumps virus, rubella virus, polio virus, rabies virus, respiratory syncytial virus, rotavirus, smallpox virus, typhoid vaccine virus, varicella virus, yellow fever vaccine virus, and combinations thereof.
22. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are infected with baculovirus.
23. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are infected with adenovirus.
24. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are infected with adeno-associated virus.
25. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are infected with influenza virus.
26. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are Sf9 cells infected with recombinant baculovirus.

27. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are Sf9 cells infected with recombinant baculovirus carrying a heterologous polynucleotide operatively linked to a baculovirus polyhedrin promoter.
28. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are mammalian cells infected with adenovirus.
29. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are HEK-293 cells infected with adenovirus.
30. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are HEK-293 cells infected with recombinant adenovirus.
31. **(Original)** The cryogenically protected viral delivery system according to claim 1, wherein the virally infected cells are mammalian cells infected with influenza virus.

32. – 36. **(Withdrawn)**

37. **(Original)** A method for preparing a cryogenically protected viral delivery system comprising:  
admixing a plurality of virally infected cells with a cryo-protective agent to obtain an admixture having a concentration of virally infected cells of from  $10^6$  cells/ml to  $10^9$  cells/ml; and  
freezing at least a portion of the admixture for a time and under conditions sufficient so that the temperature of the frozen admixture is less than or equal to -20 °C and so that the viability of the cells in the frozen admixture is at least 50%.
38. **(Original)** The method according to claim 37, wherein at least a portion of the admixture is frozen for a time and under conditions sufficient so that the viability of the cells in the frozen admixture is at least 70%.

39. **(Original)** The method according to claim 37, wherein at least a portion of the admixture is frozen for a time and under conditions sufficient so that the viability of the cells in the frozen admixture is at least 90%.
40. **(Original)** The method according to claim 37, wherein the admixture is substantially free of extracellular viral particles.
41. **(Original)** The method according to claim 37, wherein the admixture is substantially free of spent incubation media.
42. **(Original)** The method according to claim 37, wherein at least a portion of the admixture is frozen for a time and under conditions sufficient so that the temperature of the frozen admixture is less than or equal to -70 °C.
43. **(Original)** The method according to claim 37, wherein at least a portion of the admixture is frozen for a time and under conditions sufficient so that the temperature of the frozen admixture is less than or equal to -130 °C.
44. **(Original)** The method according to claim 37, wherein at least a portion of the admixture is frozen by reducing the temperature at a rate of from 1 °C/minute to 30 °C/minute.
45. **(Original)** The method according to claim 37, wherein the plurality of virally infected cells and the cryo-protective agent are admixed in amounts to obtain an admixture having a concentration of virally infected cells of from  $5 \times 10^6$  cells/ml to  $5 \times 10^8$  cells/ml.
46. **(Original)** The method according to claim 37, wherein the plurality of virally infected cells are admixed with a cryo-protective agent selected from the group consisting of DMSO, serum albumin, serum, glycerol and mixtures thereof.
47. **(Original)** The method according to claim 37, further comprising preparing the plurality of virally infected cells by:  
inoculating a plurality of uninfected host cells with a plurality of viruses;

incubating the inoculated cells in a composition comprising incubation media for a time and under conditions sufficient to obtain a plurality of virally infected cells; and separating the plurality of virally infected cells from substantially all spent incubation media and extracellular viral particles and collecting the plurality of virally infected cells in a vessel.

48. **(Original)** The method according to claim 47, wherein the plurality of virally infected cells are collected in a vessel having a size of at least 100 ml.

49. **(Original)** The method according to claim 37, further comprising aliquoting at least a portion of the admixture into cryogenic vessels prior to freezing the aliquoted admixture.

50. **(Original)** The method according to claim 49, wherein at least a portion of the admixture is aliquoted into cryogenic vessels having a volume of less than or equal to 6 ml.

51. **(Original)** The method according to claim 50, wherein the cryogenic vessels are polypropylene vials.

52. **(Original)** The method according to claim 49, wherein at least a portion of the admixture is aliquoted into the cryogenic vessels in an amount from  $10^6$  to  $10^9$  virally infected cells.

53. **(Original)** The method according to claim 49, wherein the volume of the admixture aliquoted into the cryogenic vessels is from 0.5 ml to 20 ml.

54. **(Original)** The method according to claim 37, wherein the virally infected cells are eukaryotic cells.

55. **(Original)** The method according to claim 37, wherein the virally infected cells are insect cells.

56. – 83. **(Withdrawn)**